

1 **CRAPS GAME IMPROVEMENT**

2 **CROSS-REFERENCE TO RELATED APPLICATIONS**

3 The present application is a continuation of patent application serial number
4 10/090,132, filed on February 28, 2002.

5 **BACKGROUND OF THE INVENTION**

6 **1. Field of the Invention:**

7 The present invention relates to a well known wagering game called "Craps" and
8 more particularly to an improvement thereto referred to herein as a "FIRE BET™".

9 **2. Description of the Prior Art:**

10 Craps is a casino wagering game which is enjoyed for its fast pace and excitement.
11 The standard rules of play for Craps are very well established, so that there is no need to
12 inform those having ordinary skill in the art how Craps is played. However, as a prelude
13 to discussion of the present invention, it is useful to provide a short overview of the
14 standard rules pertaining to a Craps "Pass Line" bet.

15 Referring now to Figure 1, Craps is played on an elongated Craps table 10, having
16 a horizontal table top 12 surrounded by a sidewall 14. The playing surface 16 is provided
17 with a lay-out 18 in the form of indicia indicative of the play of Craps. The playing surface
18 16, may for example be a felt material having the indicia of the lay-out 18 imprinted
19 thereupon. The lay-out 18 includes indicia indicative of a pass line bet area 20, indicia
20 indicative of a point number area 22 (a plurality of squares having, respectively, therein the

1 numbers 4, 5, 6, 8, 9 and 10), and indicia indicative of a proposition bet area 24.

2 In the play of Craps according to the standard rules, every player gets a chance to
3 throw the dice. The person throwing the dice is called the "shooter". The shooter must
4 make a "pass line" (referred to also as a "line") wager (bet) by placing a selected number
5 of chips representing the value of the wager within the pass line bet area 20. The shooter
6 then throws the dice for his or her initial toss, referred to as the "initial come out". If a 7 or
7 an 11 was thrown, then a Pass Line wager wins and is paid even money; this outcome is
8 referred to as a "natural winner". If a 2, 3, or 12 was thrown, then a pass line wager loses
9 and is forfeited; this outcome is referred to as a "natural loser". If a number is thrown other
10 than a 2, 3, 7, 11, or 12, then that number establishes the shooter's "point" (this point is
11 either a 4, 5, 6, 8, 9, or 10). The shooter's point is then marked by a dealer with a white
12 circular point marker 26 called a "puck" (in Figure 1, the puck is placed by way of example
13 on the 5 number because the shooter has, merely by way of example, tossed a number
14 5). Once a point has been established, the shooter will continue to throw (that is, roll
15 or toss) the dice until he or she either: 1) again throws the point number again (referred to
16 as "making the point"), or 2) throws a 7 (referred to as a "seven out" or "sevening out").
17 If the shooter "makes the point", then any player who made a pass line wager wins even
18 money, and the shooter throws the dice for a repeat come out (this toss is not to be
19 confused with the "initial come out"). If, however, the shooter "seven outs", then any player
20 who made a pass line wager forfeits the money wagered, and the shooter forfeits his or her
21 turn and passes the right to dice throwing to the next shooter (in clockwise order). This
22 next shooter will then throw an initial come out after bets have been placed, as described
23 hereinabove.

While the game of craps played according to the standard rules is exciting and enjoyable to play, what remains needed in the art is an improvement in the form of a simply executed proposition wager which provides the bettor the possibility of a high pay-out relative to the value of the bet.

SUMMARY OF THE INVENTION

The present invention is an improvement to the standard rules of craps in the form of a simply executed proposition wager which provides the bettor the possibility of a high pay-out relative to the value of the bet, referred to hereinafter as a "FIRE BET™".

A FIRE BET is a proposition bet made in conjunction with a Craps game otherwise played according to conventional rules of play. The lay-out is modified to include sequentially labeled wager areas located in the center of the Craps lay-out near the customary proposition bet area, as well as to include a plurality of mutually spaced player betting areas located in front of each player position around the Craps lay-out. The betting areas are sequentially labeled around the lay-out in correspondence with the sequential labeling of the wager areas. A plurality of point markers are provided for selective placement at the point number area as points are made according to the method of the present invention. The outcome of a FIRE BET wager is determined according to the method of the present invention and is dependent upon the course of play of the Craps game, wherein all other wagers under conventional rules are independent of whether or not a FIRE BET is wagered.

A player can only make a FIRE BET wager before the initial come out dice toss of each shooter. Each player making a FIRE BET wager must do so by making a FIRE BET

1 wager indication by placing his or her chip(s) on the appropriate player wager area on the
2 lay-out directly below their gaming position. Once a FIRE BET is wagered by placement
3 of at least one selected chip each participating player's respective player betting area, a
4 dealer will retrieve the chip(s) and place the chip(s) upon the corresponding wager areas,
5 designated for a "FIRE BET" in the proposition area. These FIRE BET wagers will then
6 remain in the respective wager areas until the FIRE BET wagers are paid or lost, wherein
7 FIRE BET wagers are won or lost based upon accumulation of "made points" in response
8 to outcomes of dice throws by the shooter.

9 The shooter throws his or her initial come out toss. If the outcome is a natural
10 winner or loser, there is no affect upon accumulation of made points, and, in this scenario,
11 a shooter then repeats an initial come out throw. If the initial come out toss result is a point
12 (a number 4, 5, 6, 8, 9, or 10) then the point is established, and the puck is placed at the
13 point location of the point number area. The shooter then again tosses the dice. If the
14 outcome is the point, then the point is made, the puck is removed and a selected point
15 marker is placed at the point location of the point number area a point marker is placed.
16 The shooter then continues to toss the dice. Additional points are accumulated in the
17 same manner only if the outcome is a new point not already made. At any time during the
18 course of play, if the outcome is a seven out the game is over.

19 A pay-out to the FIRE BET wagerers is won according to the schedule of a
20 predetermined pay-out table. For example, a pay-out may require accumulation of 3
21 points, wherein if the game ends at an accumulated 0, 1 or 2 points, then the FIRE BET
22 wager is lost; but, if 3 points are accumulated, then a pay-out is won according to the
23 schedule of the pay-out table. In this example, if the game ended at the accumulation of

1 points higher than 3, then the pay-out won is that only of the points of the highest
2 accumulated points according to the schedule of the pay-out table.

3 Accordingly, it is an object of the present invention to provide an improved Craps
4 game having a simply executed proposition wager which provides the bettor the possibility
5 of a high pay-out relative to the bet.

6 This, and additional objects, advantages, features and benefits of the present
7 invention will become apparent from the following specification.

8 BRIEF DESCRIPTION OF THE DRAWINGS

9 Figure 1 is a top plan view of a prior art Craps table and lay-out.

10 Figure 2 is a top plan view of a Craps table and lay-out incorporating a FIRE BET
11 according to the present invention.

12 Figure 3 is a broken-away top plan first view of the Craps table and lay-out of Figure
13 2, shown in operation according to the method of the present invention.

14 Figure 4 is a broken-away top plan second view of the Craps table and lay-out of
15 Figure 2, shown in operation according to the method of the present invention.

16 Figure 5 is a top plan view of the Craps table and lay-out of Figure 2, shown in
17 operation according to the method of the present invention.

18 Figures 6A through 6L are top plan views of point markers according to the present
19 invention.

20 Figures 7A and 7B are a flow chart expositive of the method according to the
21 present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the Drawing, Figures 2 through 7B depict various aspects of the present invention, wherein Figure 2 shows a plan view of a Craps table 100 having a Craps lay-out 102 including FIRE BET™ indicia 104 according to the present invention. The Craps table 100 is structurally conventional. The lay-out 102 includes conventional wager indicia pertaining to all conventional Craps wagers, including indicia indicative of a pass line bet area 106, indicia indicative of a point number area 108 (a plurality of squares having therein, respectively, numbers 4, 5, 6, 8, 9 and 10), and indicia indicative of a proposition bet area 110.

In addition to the aforesaid conventional wager indicia, the lay-out 102 has, as above mentioned, FIRE BET indicia 104. In this regard, a plurality of sequentially labeled FIRE BET wager areas 112 are located in a FIRE BET wager area 114 at the center of the lay-out 102 near the proposition bet area 110, and a plurality of mutually spaced FIRE BET player betting areas 116 are located in front of each player position, respectively, around the lay-out. The FIRE BET player betting areas 116 are sequentially labeled in clockwise rotation around the lay-out 102, wherein the labeling is in one-to-one correspondence with the sequential labeling of the FIRE BET wager areas 112. In the preferred embodiment, both the FIRE BET wager areas 112 and the FIRE BET player betting areas 116 are circles, 14 in number, having numeric labeling beginning with 1 and ending with 14.

As shown at Figures 6A through 6E, a plurality of point markers 118 are provided for selective placement at the point number area 108 as points are made according to the method of the present invention. It is preferred for the point markers 118 to be indicative of the accumulated points, respectively. In this regard, it is preferred for the point markers

118 to have indicia identifiably specific to the point accumulation, such as point number indicia, as indicated at Figures 6A through 6F. Also in this regard, it is preferred for the point markers 118 to have indicia which is identifiably specific to the accumulated points pay-out amount based upon, for example, a \$2.50 bet and the schedule of the pay-out table, as exemplified by Figures 6G through 6L (which embodiments are most preferred), wherein point marker 118₁ indicates no pay-out (since only a first point has been made), and wherein point markers 118₂, 118₃, 118₄, 118₅ and 118₆ are associated with accumulated points per the schedule of the pay-out table, for example 2, 3, 4, 5 and 6 accumulated made points, respectively. It is further preferred for the point markers to be clearly different from both the chips and the puck, as for example being a unique color and unique size intermediate of that the puck and chips. It is preferred that during play each point marker of each made point be displayed so as to avoid confusion over which point numbers have already been made. For example, if 1 point has been made, then the point marker indicative of 1 point is displayed. Subsequently, if 2 points are made, then the point marker indicative of 1 point remains and a point marker indicative of 2 points is also displayed.

It is to be noted that the indication of points made may be by any mechanism or device, be that puck-like point markers (as shown at Figures 6A through 6L), or by some other apparatus, such as for example an electronic indication. For example, there may be a point marker light embeded in the table and visible through the lay-out at each point number of the point number area, wherein any light may display any of the accumulated points indicia. In this example, a dealer presses a selected button switch to illuminate a point marker light, wherein the display is indicative of the accumulated made points.

1 Alternatively, for example, rather than a light, or in addition thereto, a screen may
2 electronically display the point marker information. In this electronic form of point markers,
3 the dealer would choose to activate a light, display etc. appropriate to the points made via
4 selection of a switch from a plurality of switches or by other electronic data entry device.

5 The outcome of a FIRE BET wager is determined according to the method of the
6 present invention and is dependent upon the course of play of the Craps game, wherein
7 all other wagers under conventional rules are independent of whether or not a FIRE BET
8 is wagered.

9 According to the preferred method of the present invention, any player may make
10 a FIRE BET wager, either by itself or independently accompanying a conventional Craps
11 wager, wherein the player can only make a FIRE BET wager before the initial come out
12 dice toss of each shooter. Each player making a FIRE BET wager must do so by making
13 a FIRE BET wager indication by placing his or her chip(s) 120 on the appropriate FIRE
14 BET player betting area 116 on the lay-out 102 directly below his or her respective gaming
15 position. For example, Figure 3 depicts FIRE BET wagers made by three players who
16 placed their chips 120 at their respective player position FIRE BET player betting area 116
17 (any independently accompanying conventional Craps bet these players may have also
18 made is not shown for simplicity). While the FIRE BET wager indication placed by a player
19 at his or her respective FIRE BET betting area 116 may be any chip, it is preferred for the
20 FIRE BET wager indication to be a unique FIRE BET chip having a predesignated value,
21 preferably having a \$2.50 value.

22 Once a FIRE BET is wagered, a dealer will retrieve the chip(s) 120 and place the
23 chip(s) upon the corresponding FIRE BET wager areas 112 of the FIRE BET wager area

1 114 adjacent the proposition area 110 (see Figure 4). These FIRE BET wagers 122 will
2 then remain in the respective FIRE BET wager areas 112 until the FIRE BET wagers are
3 either paid or lost. In this regard, FIRE BET wagers are won or lost based upon
4 accumulation of "made points" in response to outcomes of dice throws by the shooter. In
5 this regard, each successive made point is a numerical non-repeat made point of all earlier
6 made points. The accumulated number of made points is the FIRE BET player's "made
7 points" or simply, "points". Whether a loss (forfeit) or a pay-out occurs depends upon the
8 number of points accumulated at the time the game ends based upon the schedule of a
9 pay-out table.

10 Referring now in particular to Figures 7A and 7B, the methodology of play according
11 to the present invention will now be detailed.

12 Execution block 130 represents the FIRE BET players placing their respective FIRE
13 BET wagers according to the aforesaid methodology. Thereafter, as represented by
14 execution block 132, the shooter throws his or her initial come out toss. As represented
15 by decision block 134, if the outcome is a natural winner or loser, then there is no affect
16 upon accumulation of made points, and, in this scenario, the course of play returns to
17 execution block 132, whereat a shooter repeats an initial come out throw. However, again
18 referring to decision block 134, if the initial come out toss result is a point (a number 4, 5,
19 6, 8, 9, or 10) then, as represented by execution block 136, a point N_1 is established,
20 wherein N_1 is any one of 4, 5, 6, 8, 9 or 10. The puck is then placed by a dealer at the
21 point location corresponding to N_1 of the point number area 108. For example with
22 reference to Figure 5, the puck 124 has been placed at numeral 8 because a number 8
23 was rolled (that is, in this scenario $N_1 = 8$).

1 As represented by execution block 138, the shooter then again tosses the dice. If
2 the outcome, as represented by decision block 140, is a number 7, then the shooter has
3 sevened out and the FIRE BET wager is lost (forfeited), as represented by block 142. If
4 not, then, as represented by decision block 144, if the outcome is the point (that is, the
5 result equals N_1), then, as represented by execution block 146, the first point is made, and
6 the FIRE BET players now have one made point (or simply, one point). Simultaneously,
7 the puck is removed by a dealer, and a selected point marker 118₁ is placed at the point
8 location of the point number N_1 (ie., point number 8) of the point number area 108 (see
9 Figure 2). Revisiting decision block 144, if, however, the outcome is other than the point,
10 the shooter again rolls the dice, as represented by a return to execution block 138.

11 As represented by execution block 148, the shooter then again tosses the dice. As
12 represented by decision block 150, if the outcome is a number 7, then the shooter has
13 sevened out and the FIRE BET wager, as represented by decision block 152, is either lost
14 (forfeited), as represented by execution block 154, or is won, as represented by execution
15 block 156. In this regard, a pay-out is won if the number of points made is at least equal
16 to a preset number of made points (or simply, points) according to a schedule of a pay-out
17 table, as exemplified by Pay-Out Tables A through I hereinbelow. Further in this regard,
18 it is preferred that no pay-out be won for accumulation of just a single made point (or
19 point). If the outcome is not a 7, then, as represented by decision block 158, if the
20 outcome is a point (that is, the result is N_2 wherein N_2 is any one of 4, 5, 6, 8, 9 or 10 and
21 $N_2 \neq N_1$), then, as represented by execution block 160 the point is established. The puck
22 is then placed by a dealer at the point location corresponding to N_2 of the point number
23 area in the manner aforesaid. Revisiting decision block 158, if, however, the outcome is

1 other than the point, the shooter again rolls the dice, as represented by a return to
2 execution block 148.

3 The shooter, as represented by execution block 162, again tosses the dice. As
4 represented by decision block 164, if the outcome is a number 7, then the shooter sevens
5 out and the FIRE BET wager, as represented by decision block 166, is either lost
6 (forfeited), as represented by execution block 168, or is won, as represented by execution
7 block 170. As mentioned above, a pay-out is made if the number of points made is at least
8 equal to a preset number of made points (or points) according to a schedule of a pay-out
9 table, as exemplified by Pay-Out Tables A through I hereinbelow. For example, if
10 according to the schedule a minimum number of points is 3, then in this situation of play
11 all FIRE BET wagers are lost; and, even if according to the schedule the minimum number
12 of points is 2, still no pay-out is won because in this situation of play the second point has
13 only been established, but has not yet been made. If the outcome is not a 7, then, as
14 represented by decision block 172, if the outcome is the point (that is, the result is N_2),
15 then, as represented by execution block 174 the second point is made, and the FIRE BET
16 players now have two made points (or two points). The puck is then removed by a dealer,
17 and, with the first point marker remaining at the point number N_1 , a second selected point
18 marker is placed at the point location of point number N_2 of the point number area, as
19 aforescribed. For example with reference again to Figure 2, the puck 124 was placed
20 at point number 5 (because this was, in this example, the point number established), and
21 since this point number has now been made, the puck will be removed and the second
22 selected point marker 118₂ has been placed thereat. Revisiting decision block 172, if,
23 however, the outcome is other than the point, the shooter again rolls the dice, as

1 represented by a return to execution block 162.

2 With the second point made, the methodology of play continues in the manner
3 hereinabove described, as represented by execution block 176. In this regard, the third
4 point is established when N_3 is rolled before a 7 is rolled, wherein N_3 is any one of 4, 5, 6,
5 8, 9 or 10 and $N_3 \neq N_1 \neq N_2$, and wherein the third point is made when N_3 is again rolled
6 before a 7 is rolled; the fourth point is established when N_4 is rolled before a 7 is rolled,
7 wherein N_4 is any one of 4, 5, 6, 8, 9 or 10 and $N_4 \neq N_1 \neq N_2 \neq N_3$, and wherein the fourth
8 point is made when N_4 is again rolled before a 7 is rolled; the fifth point is established when
9 N_5 is rolled before a 7 is rolled, wherein N_5 is any one of 4, 5, 6, 8, 9 or 10 and $N_5 \neq N_1 \neq$
10 $N_2 \neq N_3 \neq N_4$, and wherein the fifth point is made when N_5 is again rolled before a 7 is
11 rolled; and finally, the sixth point is established when N_6 is rolled before a 7 is rolled,
12 wherein N_6 is any one of 4, 5, 6, 8, 9 or 10 and $N_6 \neq N_1 \neq N_2 \neq N_3 \neq N_4 \neq N_5$, and wherein
13 the sixth point is made when N_6 is again rolled before a 7 is rolled.

14 The schedule of a predetermined pay-out table is critical information prior to play
15 because: 1) it specifies the minimum number of points for a pay-out (any lesser number
16 of points results in a loss (forfeit) of the FIRE BET wager), wherein only the pay-out
17 corresponding to the accumulated point is paid out (all pay-outs for lesser point numbers
18 are not paid); 2) it specifies the pay-out odds, and, consequently the pay-out per the
19 accumulated points; and 3) it inherently defines the house odds edge.

20 Pay-Out Tables A through I define preferred pay-out schedules, Pay-Out Table I
21 being most preferred. An exact probability analysis was performed to derive the probability
22 distribution of all points made. The accuracy of the analysis was verified by a one-billion
23 roll computer simulation. In that a shooter could, in theory, have an infinitely long streak

- 1 of making points without sevens out, approximations were made. However, the error is
- 2 estimated to be within an insignificant 0.000002%.

Pay-Out Table A
(House edge: 17.12%)

Number of points made:	Pay-out odds:	Probability:
6 points	2,000 for 1	0.0162435
5 points	200 for 1	0.163993
4 points	20 for 1	0.879818

Pay-Out Table B
(House edge: 24.16%)

Number of points made:	Pay-out odds:	Probability:
6 points	2,000 for 1	0.0162435
5 points	200 for 1	0.163993
4 points	12 for 1	0.879818

Pay-Out Table C
(House edge: 19.39%)

Number of points made:	Pay-out odds:	Probability:
6 points	3,000 for 1	0.0162435
5 points	100 for 1	0.163993
4 points	10 for 1	0.879818
3 points	2 for 1	3.343420

Pay-Out Table D
(House edge: 19.99%)

Number of points made:	Pay-out odds:	Probability:
6 points	1,000 for 1	0.0162435
5 points	200 for 1	0.163993
4 points	20 for 1	0.879818
3 points	4 for 1	3.343420

Pay-Out Table E
(House edge: 15.39%)

Number of points made:	Pay-out odds:	Probability:
5 points	200 for 1	0.180237
4 points	40 for 1	0.879818
3 points	4 for 1	3.343420

Pay-Out Table F
(House edge: 14.34%)

Number of points made:	Pay-out odds:	Probability:
5 points	280 for 1	0.180237
4 points	40 for 1	0.879818

Pay-Out Table G
(House edge: 22.07%)

Number of points made:	Pay-out odds:	Probability:
5 points	200 for 1	0.180237
4 points	40 for 1	0.879818
3 points	2 for 1	3.343420

Pay-Out Table H
(House edge: 21.55%)

Number of points made:	Pay-out odds:	Probability:
5 points	240 for 1	0.180237
4 points	40 for 1	0.879818

Pay-Out Table I
(House edge: 24.87%)

Number of points made:	Pay-out odds:	Probability:
6 points	1,999 to 1	0.0162435
5 points	200 to 1	0.163993
4 points	10 to 1	0.879818

It is to be understood that by the term "shooter" means a person or persons who shoot from an initial come out to a seven out. In that the person who is serving as the shooter may leave the game in mid-play, any player who serves thereupon in substitution as shooter in his or her place is included by, and within the meaning of, the term shooter.

To those skilled in the art to which this invention appertains, the above described preferred embodiment may be subject to change or modification. Such change or modification can be carried out without departing from the scope of the invention, which is intended to be limited only by the scope of the appended claims.